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Automotive News

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10 YEARS OF TUMULT

Lessons of the '80s could help carmakers pass test of the '90s

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

Lee Iacocca's name is on the lips of housewives everywhere. From now on, your Jaguar is really a Ford, but Ford is a savings and loan. Suzuki sells Pontiacs in Yokahama, while Chevrolet sells Suzukis in Pittsburgh. And the governor of Ohio is waiting for Honda to relocate its corporate headquarters to Columbus.

Decade in photos, Pages 4-7

To say the 1980s were a long, strange trip for the U.S. auto business is putting it blandly. Like no other decade before, the 1980s overturned most everything in their path, from corporate structures to international market shares, from factory work rules to showroom architecture. It was a decade of records and miserable losses, of bleak outlooks and brilliant turnarounds.

It was as if something strange emanated from the back of those new micro-computers that appeared on secretaries' desks around 1981: a strange urge to cut costs, reduce employment, buy robots, move factories, retrain employees, diversify and, generally speaking, reduce back seat legroom.

The tumult started in 1980 with Chrysler Corp. paying its bills with a $1.2 billion loan guaranteed by Congress to save the teetering carmaker.

Northern Ireland became the producer of a hot new gullwing sports car. Then its creator — former Pontiac phenom John Z. DeLorean — was accused and later acquitted of trafficking in cocaine.

By decade's end, consumers were driving faster, getting tickets for not wearing seat belts, telephoning each other as they drove and clamoring for products that 10 years earlier were largely considered delivery trucks and military transports.

Chrysler wasn't alone in its miseries. As the 1980s opened, domestic car sales were in the dumps — down to 6.6 million units from 9.3 million just two years earlier. Plagued by dragging sales, bad labor relations and a threadbare quality image in 1980, Ford was hemorrhaging red ink at a rate of almost $5 million a day. General Motors suffered its first full-year loss since the Great Depression. And if 1980 was abysmal, 1981 was worse, and 1982 was even uglier.

It was the decade of the Japanese. They expanded their share of the $700-billion-a-year U.S. automotive market and spurred the domestic makers into one of the greatest shifts in the nation's automotive history.

The end result was just barely palatable to Detroit. Between 1979 and 1989, the Japanese collectively increased their car market share from 16 percent to about 25 percent, and the decade was dominated by Detroit's response.

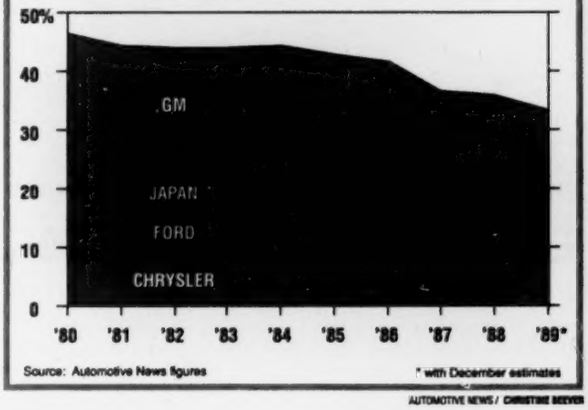
Sales by foreign carmakers in 1979 included a robust trade in Volkswagens from Germany and Pennsylvania of 2,450,000. By 1989, VW had stopped production in the United States.

Renault imports had ended. There were no more Fiats, no more MGs, no more Opels or Lancias coming to America, and still import sales topped 2.6 million.

GM's market share had been sheared by a fourth from its 46.4 percent command in 1979, while Ford and Chrysler wound up with small gains for the decade.

Market share changes

Chart shows percentage share of the U.S. car market in 1980s.



Source: Automotive News figures

* with December estimates

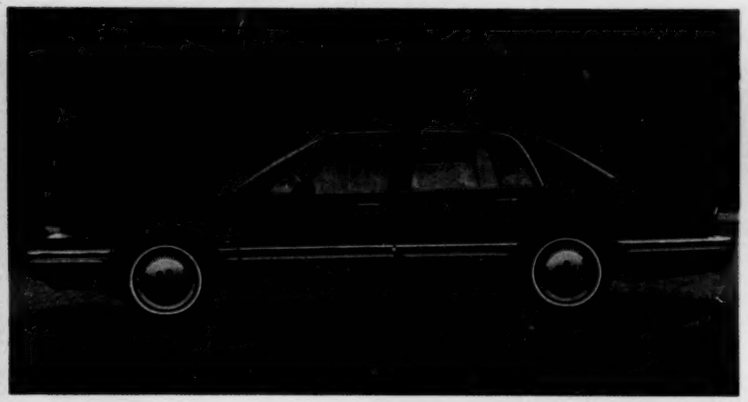
AUTOMOTIVE NEWS / CHRISTINE BEEVER

At the close of the 1970s, American auto workers numbered almost 1 million. North American factories produced 11.5 million cars and trucks a year. In three years, almost one-third of the nation's automotive workers had been laid off. By the end of the 1980s, more than a dozen U.S. car plants had been closed. The Big 3 had opened, closed, redesigned and reconfigured factories to the point that there were fewer plants producing cars more efficiently.

But at the same time, the Asian carmakers had invested $5.5 billion to open 13 gleaming, state-of-the-art factories in North America. In 1981, the group had no U.S. vehicle capacity. During 1989, the group collectively produced more than 1 million units.

In addition, Japanese parts sup-

see DECADE, page 8



Buick and Pontiac will use the 1990 auto show circuit to unveil new production and concept cars. From Buick is the redesigned Park Avenue Ultra, left, scheduled for both the Detroit and Los Angeles shows. Meanwhile, Pontiac will show off its Sunbird-based concept vehicle dubbed Sunfire to draw crowds in Detroit.

Detroit, L.A. ready for blockbuster auto shows

By Dutch Mandel
AUTOMOTIVE NEWS STAFF REPORTER

If an auto show's success is measured by new-vehicle introductions, increasing manufacturer participation and elaborate exhibits, then Detroit's second North American International Auto Show will be a hit.

More on show offerings, Pages 3, 15

But Detroit is not the only city ringing in the decade with an auto show. Covering Southern California's car-hungry market is the Greater Los Angeles Auto Show. Both shows are scheduled for Jan. 6-14.

Each event has its strength. Detroit's show, at the heart of the car-making business, has set its sights on international status and is close to the mark. Los Angeles' show, at the pulse of car-craziness, is an automotive trend barometer.

The shows are scheduled to have the same North American and world production-car debuts, with a few exceptions: Los Angeles gets the Ferrari 348 and Avanti four-door, while Detroit unveils the 1991 Aston Martin Virage.

Concept cars take center stage at each site. Detroit will have a new crop of show vehicles from each of the Big 3, as well as from a few American coachbuilders — cars and trucks said to rival last year's hot Dodge Viper, Chrysler Millennium and Ford Splash. Los Angeles scoops up many of last year's Detroit show stoppers and adds Porsche's 911-based Panamerica, which was featured at the Frankfurt show.

Along with the more than 45 production and concept vehicles debuting at Detroit are future technology exhibits — two-stroke engines from three manufacturers, safety displays and a first-of-its-kind demonstration of building a Buick

A showgoer's guide to some production and concept vehicles appearing at the Detroit show:

Alfa Romeo unveils for the world a redesigned 1991 two-seat Spider. Making its North American debut is Alfa's 164 sedan. Earlier this year Alfa Romeo teamed with specialty coachmaker Zagato to produce the Alfa SZ show car, slated to appear in Detroit only.

American coachbuilders **ASC** and **C&C** show their concept cars to the world at Detroit. ASC's Vision II has the same futuristic theme as its Vision I predecessor, while the C&C Intrigue showcases the firm's convertible hardtop technology.

One of the biggest unveilings for Detroit automakers is **Buick's** redesigned 1991 Park Avenue. The car carries sweeping, rounded lines that effectively bring it into the 1990s with a slippery 0.31 drag coefficient. It is powered by

see SHOW, page 24

Dealers like Olds rebates; results so-so

By Kathy Jackson and Arlena Sawyers
AUTOMOTIVE NEWS STAFF REPORTERS

While most of the cash offered in Oldsmobile's current dealer incentive program wound up in the customer's pocket, dealers say they like the program better than manufacturer-to-customer incentive programs.

Still, many dealers said Oldsmobile's "New Generation — Sell-A-Bration" program for dealers did little to increase either showroom traffic or gross profits. The program went into effect Thanksgiving Day and is scheduled to end Wednesday, Jan. 3.

"We like the flexibility of the money coming to the dealer," said Skip Cady, a sales manager for Jim Lupient Oldsmobile-Isuzu in Minneapolis. "When it goes to the customer, that's theirs first, and then they want to negotiate on the price of the car, too."

Said Don Mann, owner of Don Mann's Hansel and Ortman Cadillac-Oldsmobile-GMC Truck in Stockton, Calif.: "I think it's the best program General Motors or any manufacturer has come out with."

Mann was one of few Olds dealers surveyed who had a good fourth quarter. His Olds sales are

see OLDS, page 29

NEWSPAPER

IN

ca's vow:
airman predicts falling sales for 1990 but says, "Our
ams will continue . . . with a record $15 billion committed
nal world-class cars and trucks to the market." Page 3.

Chevrolet prepares 5 models for early-1990 introduction

By Jack Keebler
AUTOMOTIVE NEWS STAFF REPORTER

PHOENIX, Ariz. — The elves in Chevrolet's workshop worked overtime. The results are five new models for showroom introductions early this year.

They are the 1991 Camaro with freshened exterior styling, stretched four-door 1991 S-10 Blazer, 1991 Caprice and convertible versions of the 1990 Geo Metro and 1990 Beretta.

All five will debut at Detroit's North American International Auto Show and the Greater Los Angeles Auto Show, which run Jan. 6-14.

The Caprice is already in production and will reach showrooms by March. (See story, Page 28.)

The 1991 Camaro will also have a March introduction. Production of four-door 1991 Blazer starts this month for sale in March. The Metro convertible build also begins this month with the first units arriving at dealerships in late February. Chevrolet and C&C Inc. will roll Beretta convertibles out of the Wilmington, Del., plant early this month.

There are two Camaros this year: the RS and Z28. The Rally Sport RS version is the standard Camaro; Z28 is top of the line. The IROC badge was dropped because Chevy decided not to sponsor the International Race of Champions racing series.

The GM F-car program has been slow to come to a boil, so the old Camaro has been spruced up and will have to hold its own until the new car arrives. Camaro's changes include new front and rear fascia, "aero-styled" rocker panels and a new high-mounted stoplamp. The Z28 has new five-spoke light-alloy wheels, a taller rear-deck spoiler, fancy hood blisters and a red bowtie emblem on the grille. Stylists have removed the Z28's lower stripes and decals. An important upgrade was made to the car's acoustical blanket.

The standard powerplant in the RS is the 3.1-liter V-6 mated to a five-speed manual transmission. A four-speed automatic is optional. RS coupes can also be equipped with a 5-liter V-8 for the first time. The V-8 is the standard engine in the RS convertible.

Chevrolet's 1991 Camaro will hit the stores in March.

Standard Z28 power is provided by a 5-liter V-8 and a five-speed manual. A four-speed automatic is optional. For Z28 buyers who select the 5.7-liter V-8, an automatic is the only transmission available.

All Camaros offer a driver-side air bag and a resistor-key anti-theft system. There are two new exterior colors — arctic white

see CHEVY, page 28

Commerce sees auto rise after 1990 dip

By Diana T. Kuryiko
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — If the Department of Commerce is right, automotive sales will improve after 1990.

In its annual outlook for 350 industries, the Commerce Department said last week that new-vehicle sales will dip 1.3 percent this year. But the report said sales will rebound in 1991, top 15 million in 1992 and hit 15.6 million in 1994.

Despite the rosy sales outlook, the department said intense competition will likely require additional restructuring of the domestic auto companies, similar to what the Big 3 underwent in the early 1980s.

The auto industry as a whole can expect to grow as long as the economy expands, the government said.

As for this year, the Commerce Department said total car sales will decline less than 1 percent, or 85,000 units, from a projected 9,975,000 in 1989. Truck sales — including medium- and heavy-duty models — will take a bigger hit. They're expected to drop 2.3 percent to about 4.9 million.

Total vehicle sales in 1990 will reach 14,788,000 units, down from a projected 14,988,000 in 1989.

U.S. DEPT. OF COMMERCE SALES PROJECTIONS
(figures in thousands of units)

	1989	1990	1991	1992	1993	1994
Cars	9,975	9,890	10,020	10,200	10,335	10,445
Trucks	5,013	4,898	4,957	5,063	5,131	5,189
Total	14,988	14,788	14,977	15,263	15,466	15,634

But auto parts sales will rise 1.4 percent because of increased domestic sourcing by Japanese transplants, an aging vehicle fleet and increased exports, Commerce said.

Between 1989 and 1994, sales of domestically produced vehicles will increase by nearly 500,000 units, the report said. But the Big 3 will make fewer cars and lose market share to the transplants, the Commerce Department said. The competition from the Japanese also will continue to increase, especially in luxury and intermediate markets.

"This trend, combined with growing North American overcapacity, will lead to some plant closures and accompanying regional unemployment problems during the early and mid-1990s," Commerce said. It anticipates employment will decline primarily through attrition but does not rule out layoffs and transfers.

"The increasing competitive environment facing the industry will continue to exert pressure on firms to cut costs, improve quality and identify and exploit market niches," the study said.

Imports of passenger cars will remain fairly steady during the period because of currency realignments and increased transplant production, the Commerce Department said.

It attributed its forecast of improved sales after 1990 to new product offerings and new vehicle manufacturers.

U.S. sales of North American-built passenger cars in 1990 will drop to 7.09 million from 7.16 million forecast for 1989. Japanese imports will increase to 2 million from 1.94 million in 1989. But overall imports will decline to 2.80 million in 1990 from 2.81 million in 1989, the Commerce Department said.

Currency fluctuations have narrowed the price gap between domestic and import vehicles but have taken a toll on European luxury cars, whose sales fell 13 percent in 1989, the study said.

The lower dollar has also lured Japanese automakers to produce in the United States. But without a further decline in the dollar, U.S. auto manufacturers may have difficulty sustaining the kind of export growth that followed earlier shifts in currency values, the study said.

Overall, the Commerce Department sees continued but slower growth for the vast majority of industries, both manufacturing and service.

Gloomy Iacocca predicts tougher year for industry

By Kathy Jackson
AUTOMOTIVE NEWS STAFF REPORTER

Lee Iacocca, stung by Chrysler Corp.'s loss of car market share in 1989, predicts that "1990 is going to be even tougher, maybe the toughest year the industry has faced in a decade."

In a year-end statement, the Chrysler chairman projects that sales will total 14.5 million cars and trucks this year, down from about 14.9 million in 1989. He said sales could drop even lower if incentives don't entice consumers.

The last time sales dipped below 14.5 million was in 1984, when car and truck sales totaled about 14.4 million.

AUTOMOTIVE NEWS/JOE WILSSENS

> "1990 will be toughest year the industry has faced in a decade."
> Lee Iacocca

Auto analyst David Pulaski agrees that the new year will be tough, but he doesn't see Chrysler threatened, as it was when it entered the 1980s.

Pulaski, director of the automotive group at Abt Associates in Torrance, Calif., said Chrysler's strong base of business and its strong distribution system still put the company's car and truck sales "well beyond any of the individual importers, which are perceived as very good."

Chrysler sold approximately 2 million trucks and cars in 1989. That was about 13.5 percent of the domestic car and truck market, down from 14.3 percent of the market in 1988. Chrysler slid from an 11.3 percent share of car sales in 1988 to 10.5 percent last year.

Strong sales of Jeeps and minivans last year allowed Chrysler to maintain the 19.3 percent share of the light-truck market it enjoyed in 1988. Iacocca said Chrysler sold about 977,000 light trucks in 1989, down 4 percent from 1988.

Despite the declines, Iacocca vowed, "Our product programs will continue into the 1990s with a record $15 billion committed to bring additional world-class cars and trucks to the market."

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BMW's Wolfgang Reitzle says his creative staff invents "new things every day and every hour."

Reitzle, BMW's r&d boss, expects a long, bitter battle with Japanese

By Richard Johnson
AUTOMOTIVE NEWS STAFF REPORTER

MUNICH, West Germany — Wolfgang Reitzle has already crammed a life's work into the 1980s, but he seems likely to be a conspicuous auto industry leader long after the turn of the century.

And if events unfold as BMW's research and development chief expects, he'll spend the rest of this century and part of the next in a life-or-death struggle with Japanese carmakers.

Given the impact Reitzle has made before age 40 and his bright prospects (not to mention good looks and stylish dress), it's easy to understand why European lifestyle magazines clamor to feature him.

Ten years and one month after joining BMW AG as a production specialist out of Munich Technical University, Reitzle was appointed a deputy member of the BMW board of management in charge of product development — at age 36.

That was in 1986, when industry observers were wondering what BMW — having virtually created the sport sedan segment and watched others leap in — would do next. Reitzle, now a full board

see REITZLE, page 29

MARQUES

Importers leave an indelible mark

A decade ago, it was easy to tell the difference between an import and a domestic automobile. Today, it's hard to keep track without a scorecard.

In 1979, 31 import marques were doing business in the United States — eight Japanese and 23 European. Today's total is 33, but the makeup has changed.

British mainstays MG and Triumph left the scene. A stainless steel sports car called DeLorean came and went, too. Later, Italian giant Fiat called it quits; so did Lancia.

By then, Isuzu had arrived. It was later joined by Acura, Yugo, Hyundai, Sterling Suzuki, Daihatsu, Lexus and Infiniti.

Renault's pipeline to the United States was closed after Chrysler Corp. bought American Motors, which was partly owned by Renault.

That venture aside, the Big 3 automakers have done their part to complicate matters.

Chevrolet sells a line called Geo, which is made up of Suzukis, Isuzus and Toyotas.

The Pontiac LeMans — originally a 1960s-era muscle car — is now a sedate subcompact. It is based on GM of Europe's Opel, built by Daewoo in Korea and sold in the United States.

Throughout the decade, Ford took a few stabs at establishing some of its European products in the U.S. market. But the Fiesta and more recently the Merkur XR4Ti and Scorpio have been abandoned.

Now Ford sells Festivas that are engineered by Mazda and built by Kia Motors of Korea.

It also sells Probes that were engineered by Mazda and are built by Mazda in Michigan.

In an apparent reciprocal move, Ford plans to provide a version of its new two-door Explorer sport-utility to Mazda dealers.

From a simple importer of Mitsubishi products early in the decade, Chrysler now builds a line of Mitsubishi sports cars with its Japanese partner in Illinois.

The Diamond-Star Motors venture supplies Plymouth, Eagle and Mitsubishi showrooms with sport coupes and will soon be providing the Eagle and Mitsubishi franchises with a compact sedan.

— Philly Murtha

1980

Oldsmobile Cutlass Supreme leads the industry as its sales reach 469,573 units.

Chevrolet Chevette, with 373,988 sales, dips to the No. 2 spot from No. 1 the year before.

	Car Sales	% of Market
GM	4,065,789	46.79%
Ford	1,445,988	16.64%
Chrysler	931,056	10.72%
Honda	375,388	4.32%
Mazda	161,623	1.86%
Nissan	516,890	5.95%
Toyota	582,204	6.70%
VW	336,078	3.87%
Total Dom.	6,291,757	72.41%
Total Imp.	2,396,934	27.59%
Total	8,688,691	

VW includes Audi

1981

Olds does it again as Cutlass Supreme leads the field with 454,188 deliveries at retail.

Chevrolet Citation, later much maligned — but vindicated — in a lengthy federal trial that centered on safety of X-car brakes, rises to second place with sales of 321,023.

	Car Sales	% of Market
GM	3,796,696	44.50%
Ford	1,380,600	16.18%
Chrysler	995,038	11.66%
Honda	370,705	4.34%
Mazda	166,088	1.95%
Nissan	464,805	5.45%
Toyota	576,491	6.76%
VW	295,435	3.46%
Total Dom.	6,206,296	72.74%
Total Imp.	2,326,376	27.26%
Total	8,532,672	

VW includes Audi

DECADE

FROM PAGE 1

pliers grew from fewer than 30 U.S. factories in 1985 to almost 300 by 1988 to help increase their customers' domestic-content levels. Domestic carmakers themselves now rely on those transplant parts makers for an increasing number of components, and the Made-In-USA label has quotation marks around it.

The battle cry of the early 1980s was simply "Buy American." Manufacturers and union officials beseeched Congress to slam the door on imports to protect U.S. jobs. Ford and the UAW even joined forces to demand that the U.S. International Trade Commission place strict limits on import volume.

Consumers paid little heed, and the government chided Detroit for failing to anticipate changing consumer tastes.

In 1981, concerned that a Chrysler collapse could put another 75,000 Americans on the street, the Reagan administration persuaded the Japanese carmakers, under the direction of the powerful Japanese Ministry of International Trade and Industry, to voluntarily limit their car exports to the United States. The voluntary restraint agreements lasted throughout the decade, but in 1981, in the pit of hard times, it was clear that Detroit would have to devise a better plan.

When the 1980s began, all of the Big 3 were pushing new small lines they called import-fighters. GM had just introduced its high-fuel-efficiency Chevette. Ford was hawking its small Escort as a "world car." And Chrysler had its Omni/Horizon. But the strategy changed in the 1980s. Chrysler, GM and Ford seemed to simultaneously concede that their forte was large, American-style cars. Henceforth, they would obtain cars ready-made from their more cost-efficient competitors, the Asians.

All three had had the strategic foresight to buy chunks of their competitors in earlier years. Ford now turned to its Korean investment, Kia Motors, for its low-end Festiva and handed over to Mazda responsibility for developing its small cars.

GM dropped the Chevette and turned to Isuzu, Suzuki and Toyota for a trio of subcompacts now sold under the Geo banner. It charted a plan to build a new import-fighter, the Saturn, and bought the Pontiac LeMans from Korea's Daewoo Motor Co., of which GM owned 50 percent. From Mitsubishi, Chrysler would receive the Colt, the Conquest, the Dodge Raider pickup and the U.S.-built Laser/Talon sports cars.

As the decade developed, each of the Big 3 embarked on a new four-pronged strategy. The U.S. industry would survive the 1980s by cutting costs, streamlining, retooling and diversifying. Beyond that, each company made a new commitment to improve product quality, from componentry to vehicle design to retail sales programs.

A summary of their activities follows:

Chrysler Corp.

Recharging Chrysler required a combination of the federal loan guarantees and Chairman Iacocca's charisma. A latter-day Harry Truman, complete with rumors of political aspirations, Iacocca took to prime time TV to assure America that Dodge, Plymouth and company were OK. Buying Chrysler products, he inferred in a straight-talking ad campaign, was even the patriotic thing to do.

Never mind that Chrysler was selling Japanese and Canadian vehicles at the time. And never mind that Chrysler owned a good chunk of one of those upstart Japanese automakers, Mitsubishi.

As part of Chrysler's deal with Congress, the company was forced to reduce operating costs by the amount it wished to borrow. Iacocca, whose vow to sacrifice his own salary helped make him a hero of the lecture circuit, asked the UAW for concessions. The union stunned the industry, and some of its own membership, by agreeing to wage and benefit cuts totaling $622 million. The news was not lost on Ford and GM, who by 1983 would ask for and receive a combined $3.5 billion in union concessions.

Chrysler's next strategy was simply to increase sales. Its ballyhooed new K-car line was slowing down and little else of promise was in the showrooms. Step one involved clearing out a Windsor, Ontario, factory where large rear-wheel-drive cars were in production, gutting the building and tooling up to produce a van. Or more precisely, a front-wheel-drive, user-friendly minivan. Some scoffed, but when the new product appeared in 1983, its success washed the company with profits and inspired a whole market segment.

Like its competitors, Chrysler spent its way out of trouble. Between 1981 and 1984, it put $2 billion into new products. By 1984, it had the Caravan/Voyager minivans and a newly styled K-car product, the LeBaron. Seven of its 12 North American plants were retooled and two others were closed. The payoff was immediate.

During its travails, the company sold its defense contracting division, General Dynamics, to raise $1 billion. In 1985, it launched a diversification plan that built an en-

PRODUCT:

Consumers switched from mpg to hp, and sales of car-like trucks burgeoned

Fuel-sipping subcompacts were hot at the start of the decade, and performance flourished near the end.

Along the way, it became a lot harder to tell a car from a truck.

"That's the story of the '80s," said Joel Pitcoff, manager of research and analysis at Ford Motor Co. "You can divide the universe up into cars and trucks and talk about success stories in one or the other, but any view of the '80s has to center around cars vs. trucks."

Annual light-truck sales went from about 2.5 million in 1980 to twice that in 1989. The surge was led by consumers who stepped out of passenger cars into minivans and small sport-utility vehicles.

From 1980 to 1989, minivans went from 0.5 percent to 16.5 percent of the truck market, with nearly all that growth from 1984 onward. Compact sport-utilities jumped from 2.2 percent to 14.4 percent in the same period.

Within the passenger car segment, gas shortages and recession ushered in the '80s with a flood of cheap, fuel-efficient subcompacts — a segment dominated by Japanese imports.

In 1980, subcompacts accounted for about 26.8 percent of car sales and hit a peak of 29.4 percent in 1981, according to Ford figures. The average cost of a gallon of gas, which peaked at $1.22 a gallon, concerned consumers.

But gas got cheaper, tastes changed, the dollar lost strength and econoboxes fell out of fashion. By 1989 subcompacts accounted for about one of every five car sales.

Compact pickups followed much the same pattern, growing from 20.6 percent of the light truck market in 1980 to about 30 percent in 1982. By the end of 1989, that figure will be down to about 23.9 percent.

Compact cars, on the other hand, have grown from about 18 percent of the car market in 1980 to nearly 28 percent in 1989.

Luxury cars also enjoyed strong growth, from 5.7 percent of the car market in 1980 to about 8.9 percent in 1989.

Demand for performance returned — sometimes at the expense of gas mileage, but not always.

— Jim Henry

1982

Slick little Ford Escort, which is to figure strongly in the decade's sales, moves into the top spot with a tally of 337,667 units.

Olds Cutlass Supreme is strong, but dips to second place as sales total 280,566 units.

	Car Sales	% of Market
GM	3,515,660	44.07%
Ford	1,345,698	16.87%
Chrysler	930,835	11.67%
Honda	365,865	4.59%
Mazda	163,638	2.05%
Nissan	470,246	5.89%
Toyota	530,246	6.65%
VW	204,472	2.56%
Total Dom.	5,756,660	72.16%
Total Imp.	2,221,517	27.84%
Total	7,976,177	

VW includes Audi

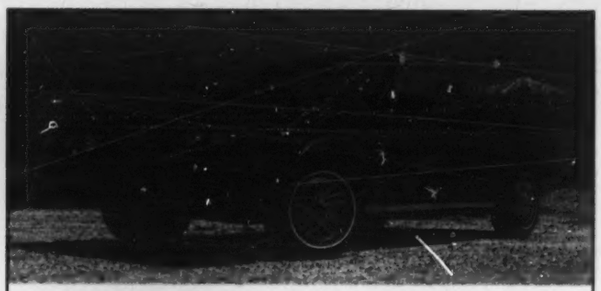
DECADE IN REVIEW

1983

Cutlass Supreme and Escort trade places in the No. 1 and No. 2 spots. Cutlass inches ahead with sales of 331,179 units to Escort's 326,333.

	Car Sales	% of Market
GM	4,053,561	44.15%
Ford	1,571,321	17.11%
Chrysler	1,155,897	12.59%
Honda	401,072	4.37%
Mazda	173,388	1.89%
Nissan	521,902	5.68%
Toyota	555,766	6.05%
VW	209,990	2.29%
Total Dom.	6,795,302	74.01%
Total Imp.	2,385,734	25.99%
Total	9,181,036	

VW includes Audi



1984

Chevrolet Cavalier, one of the General Motors front-drive J-cars introduced in 1981, moves into first place. As Cavalier's sales move up to 377,446 units, Escort keeps strong grip on second-place with 353,578 deliveries.

	Car Sales	% of Market
GM	4,600,512	44.26%
Ford	1,979,317	19.04%
Chrysler	1,281,214	12.33%
Honda	508,420	4.89%
Mazda	169,666	1.63%
Nissan	485,298	4.67%
Toyota	557,981	5.37%
VW	248,554	2.39%
Total Dom.	7,951,517	76.51%
Total Imp.	2,441,713	23.49%
Total	10,393,230	

VW includes Audi

tire new aerospace division around the acquisition of aircraft manufacturer Gulfstream Aerospace. But after acquiring No. 4 carmaker American Motors in 1987 for an estimated $2 billion, Chrysler put the aerospace properties on the block to raise new money for 1990s product development.

Buying AMC gave Chrysler a new cash cow, the Jeep line. The company also acquired Italy's Lamborghini in 1987 and bought an interest in Maserati that would give Chrysler dealers an Italian luxury sports car. Arrangements were also made to sell Alfa Romeos through the Chrysler-Plymouth dealer network. For a short time, it even looked as if Chrysler might form an alliance with Fiat Auto. But in all cases, Chrysler's European overtures seemed to lead nowhere.

General Motors

GM made no bones about seeing the light, even dubbing its plan "The Japan Strategy." In 1981, it acquired 5 percent of a struggling little car company called Suzuki and boosted its stake in Isuzu from 34 to 40 percent.

Labor costs in Japanese factories were $10 to $12 an hour less than in North America. Detroit could no longer compete against such disparity on small, low-margin products. Let Asia produce America's inexpensive cars, Detroit seemed to agree. Cadillac would always be Cadillac, and the Japanese would never aspire to building luxury cars, the industry assured itself.

A new management team had taken over at GM in January 1981, led by Roger Smith as chairman. The corporation immediately began reorganizing its mammoth structure in an effort to rekindle some of the old-fashioned traits that the Japanese were now getting all the credit for — like quality awareness, personal responsibility and pride of craftsmanship.

Smith merged all truck, bus and van operations worldwide, from design to sales, into a single truck entity. Engineering and manufacturing were brought together in Europe and South America. Component divisions were restructured and, finally, in 1984, the company's passenger car operations were grouped into two spheres, Buick-Oldsmobile-Cadillac and Chevrolet-Pontiac-Canada.

Rather than merely forking over small-car production to its Asian competitors, GM exacted a payback. It wanted access to the Asians' technology and systems. It enlisted Toyota in a joint venture to produce cars in the United States. Using a mothballed plant in Fremont, Calif., where labor strife had been the byword a few years before, New United Motor Manufacturing Inc. was launched to build Toyota Corollas and Chevy Novas side by side.

The move gave Toyota a chance to build its first U.S. cars, under the protective gaze of GM. For GM, the experiment would serve as a sort of zen garden, an operation where Old World GM managers could "get religion" in the new ways of carmaking. The lessons were eventually applied to GM operations in the United States as well as Europe.

By 1989, GM opened its second joint-venture car plant, CAMI Automotive Inc., in Ingersoll, Ontario, to produce 200,000 vehicles a year with Suzuki.

GM also embarked on a gutsy diversification strategy that bore its share of controversy. GM created GMFanuc Robotics Corp. in 1982, a venture that became North America's largest supplier of factory-floor robots within five years. In 1984, it spent $1 billion and 11 million shares of stock to acquire the Texas computer company, Electronic Data Systems Corp. In that transaction, it inherited EDS' founder Ross Perot as a board member.

The following year, GM spent another $5 billion to acquire Hughes Aircraft Co., a move intended both to diversify the company and infuse it with some new space-age technology. But the spending drew questions from Perot and alerted Wall Street and the public that an open rift was developing in GM's boardroom.

The general gameplan was "reindustrialization." GM spent almost $70 billion to open nine new factories and modernize 19 assembly plants and 12 stamping facilities. Automation from GMFanuc and EDS was woven through the organization. In 1985, the most attention-getting investment of all — GM announced that its $6 billion Saturn project would be built in Spring Hill, Tenn.

Smith called Saturn the answer to the Japanese. From a greenfield site, Saturn would use state-of-the-art technology to produce a low-priced, high-performing, sleekly designed family car that would bring Americans back home to American products. The operation would work closely with labor "partners" to adopt the best of the Japanese management system, as practiced at NUMMI.

The plant would build its own engines and transmissions, just as Honda of America Manufacturing was planning to do in Ohio. It would stamp its own chassis parts, just like Nissan Motors Manufacturing's 3-year-old plant down the road in Smyrna, Tenn. And like the workers at Japanese plants, GM reasoned, Saturn line workers would strive for excellence — not because they were being paid to do

1985

Same cards are dealt again. Cavalier tallies 431,031 sales vs. Escort's 402,181 as decade passes halfway mark.

	Car Sales	% of Market
GM	4,692,318	42.48%
Ford	2,079,366	18.82%
Chrysler	1,375,883	12.46%
Honda	552,389	5.00%
Mazda	211,093	1.91%
Nissan	575,166	5.21%
Toyota	620,047	5.61%
VW	292,282	2.65%
Total Dom.	8,204,721	74.28%
Total Imp.	2,841,063	25.72%
Total	11,045,784	

VW includes Audi

LABOR

UAW endures a 'down' decade

The UAW observed its golden anniversary in 1985, but there wasn't much jubilation for the union that year or throughout the 1980s.

The decade began with the union banning foreign automobiles from the parking lot at its Detroit headquarters and the Big 3 getting millions in concessions from its workers.

But as the automakers returned to profitability, some workers still saw their plants closed or idled due to slow sales.

The number of workers in Big 3 plants declined from about 800,000 at the beginning of the decade to about 500,000 today.

"The erosion of the domestic auto industry" was the biggest factor affecting the union in the 1980s, said Douglas Fraser, former UAW president, who retired in 1983.

During the UAW's golden anniversary year, Chrysler workers struck for 12 days, seeking wage parity with workers at General Motors and Ford Motor Co.

Also in 1985, the Canadian section of the UAW jumped ship, taking along 120,000 members, or about 11 percent of the union's 1.1 million members.

In the 1987 negotiations, Ford and GM settled without a strike as union and management hailed groundbreaking job-security provisions. But the issue apparently isn't settled. Job security promises to be a big issue in this year's auto contract talks.

While Big 3 plants have been idled, Japanese transplants continue to run at full tilt with a work force that is primarily non-union.

And at Mazda Motor Manufacturing (U.S.A.) Corp.'s plant in Michigan — the only wholly owned Japanese transplant represented by the UAW — dissidents became much more visible and won key positions amid accusations of high worker injury rates.

The GM-Toyota joint-venture in Fremont, Calif., provided a bright spot for the union. The plant, once a seat of union unrest, turned out high-quality products and served as an example for those who believe labor-management cooperation will be necessary for survival in the 1990s.

— Kathy Jackson

CAPACITY: *Asians arrived as the Big 3 receded, and there were still too many plants*

The effects of vigorous industry competition were nowhere more visible in the 1980s than in the efforts to cope with factory overcapacity.

When the 1970s ended, North American plants were turning out 13 million cars and trucks annually. Four miserable years later, factory output had been cut in half. By 1989, 13 assembly plants had been closed and capacity for 1.5 million units eliminated.

Further complicating the issue was the fact that while Detroit was boarding up facilities, Asian makers were taking steps that would see the opening of 13 new North American plants between 1982 and 1989. They were capable of turning out 2.3 million units a year.

Big 3 makers, particularly General Motors, did open some new plants during the time.

Others, like Ford, have tried to improve efficiency by squeezing more production out of existing plants.

The Big 3 made up for some capacity loss by having overseas plants build certain cars. The Pontiac LeMans, Geo Storm, Ford Festiva and Dodge Colt, for example, were produced in Asia for the Big 3.

By the end of the decade, the Big 3 were getting more than 600,000 vehicles a year from overseas plants and North American transplant and joint-venture factories.

Capacity reductions are far from over, however.

GM is faced with the prospect of closing six of its older factories, and Chrysler one.

During 1989, the Big 3 built 11.6 million cars and trucks in North America. Transplant operations built another 1 million. Those same plants could have built 770,000 more vehicles. By 1992, still another 900,000 units of capacity will come on stream — most of them from Japanese operations.

As for the factories themselves, the arrival of robotics, workerless stamping presses and computerized production has dramatically changed the way vehicles are built.

Engineers point out that plant technology has changed faster in the past eight to 10 years than it did in the previous 50.

— Lindsay Chappell

DECADE IN REVIEW

Hits of the decade

- **Chrysler's purchase of AMC:** The company got a real gem — Jeep
- **Donald E. Petersen:** He was "Don *who*?" when he became Ford chairman; not any more
- **Transplants:** They build the best vehicles on these shores, overcrowding the market and forcing U.S. automakers to shutter their plants
- **Malcolm Bricklin:** He imported the lowest-priced car in the United States, then escaped from the Yugo mess with $20 million
- **Ford Escort:** Old, stodgy and cheap, but the best-selling car in the United States
- **Anti-lock brakes:** A leap forward in active safety
- **Fuel injection:** Made low emissions possible
- **Convertibles:** Hurrah for their resurgence in the 1980s
- **Computer-aided design:** Aided engineering communication
- **Independent rear suspension:** Smoother ride, better handling
- **Front-wheel drive:** Good traction; low cost to carmakers
- **Aerodynamic improvements:** In styling and function
- **MacPherson strut:** Cheap, simple suspension system that made unibody front-wheel-drive cars possible
- **Lexus/Infiniti:** Forced European luxury makers to reassess U.S. strategy
- ***Roger & Me:*** Critical acclaim, could be headed for an Oscar
- **Honda of America:** Honda has quickly become the No. 1 transplant in the United States; Accord was one of the top-selling cars in the 1989 model year
- ***Iacocca:*** Chairman Lee's best-selling autobiography
- **Mazda Miata:** Mix a classic design in a contemporary package and watch the hearts of aging baby-boomers melt
- **Pickup trucks:** Top performer in the light-truck segment, which accounts for one-third of new-vehicle sales in the United States
- **North American International Auto Show:** After just its first year, Detroit show is considered by some makers to be equal to the best around the world
- **Center high-mounted stoplamps:** They do work no matter how E.T.-like the first generation were
- **Corvette ZR-1:** Expensive, totally sold out in advance, immediate hit with collectors
- **Luxury segment:** Sales of prestige cars bulged in the middle of the decade as Yuppies discovered BMW, Porsche, Jaguar and Mercedes-Benz
- **Ford's financial turnaround:** Cost-cutting measures and a commitment to quality products really paid off
- **Ford's mid-1980s products.** Taurus and Sable — an instant success; kept traditional Mustang while offering the Probe, a great "transplant" front-wheel-drive sport coupe
- **Chrysler Corp.:** It's still around, as are its minivan, K-car and Omni/Horizon
- **Chrysler minivan:** Chrysler saw a need and filled it admirably
- **Mike Losh:** Built excitement at Pontiac; what will he do for Oldsmobile?

1986

Chevy beats Ford one more time as Celebrity outsells Escort, 408,946 to 402,181.

	Car Sales	% of Market
GM	4,693,161	40.98%
Ford	2,080,822	18.17%
Chrysler	1,381,844	12.06%
Honda	693,515	6.05%
Mazda	222,716	1.94%
Nissan	546,151	4.77%
Toyota	647,436	5.65%
VW	277,026	2.42%
Total Dom.	8,214,662	71.72%
Total Imp.	3,239,043	28.28%
Total	11,453,705	

VW includes Audi

1987

Ford Motor Co. snags No. 1 and No. 2 positions with Escort sales totaling 392,360 units followed by Taurus with 354,971. Taurus/Sable came on the scene late in 1985 amid conjecture that its radical, bulbous styling would turn people off.

	Car Sales	% of Market
GM	3,728,313	36.46%
Ford	2,060,834	20.15%
Chrysler	1,096,385	10.72%
Honda	738,306	7.22%
Mazda	208,025	2.03%
Nissan	525,674	5.14%
Toyota	628,662	6.15%
VW	233,027	2.27%
Total Dom.	7,081,262	69.25%
Total Imp.	3,144,042	30.75%
Total	10,225,304	

VW includes Audi; Honda includes Acura

so but because they would have a pride of participation.

Things started to go wrong in 1986. Rising sticker prices suddenly chilled the auto comeback that had been in progress since 1983. GM lost market share to Ford and the Japanese. To make up for the lost ground, the company sold a major interest in its heavy truck business to Volvo and a major interest in its diesel engine business to Penske Group. It also cut Smith's pet Saturn project in half. But silencing Perot's internal criticism of GM's spending proved the bitterest pill of all. In order to remove Perot from the board of directors, GM shocked Wall Street by spending nearly $750 million to buy Perot and his top aides out of their GM role.

Ford Motor Co.

Both GM and Ford benefited from moving deeper into financial services during the 1980s. By 1988, almost a fifth of Ford's earnings came from its financial services operations. A conglomerate of financial holdings including Ford Credit and the newly acquired First Nationwide Bank was proving so lucrative that the company found it necessary to assure shareholders in 1988 that it would remain in the car business.

Ford had lost $2 billion from 1980 to 1982 and laid off 70,000 employees. But the company's performance demonstrates the essential lesson of the decade. In 1979, Ford had some 244,000 employees and sold 3.2 million vehicles in the United States. In 1988, it had 185,000 employees and sold 3.8 million vehicles. An additional 600,000 vehicles were built using three fewer plants. In fact, since 1985, Ford's North American capacity has increased by 1 million units but only one new plant has been added — the Hermosillo, Mexico, facility in 1986.

Factory automation played a key role. Obtaining products from outside plants was another. In addition to vehicles from Japan and Korea, Ford arranged for its affiliate company, Mazda Motor Corp., to supply the sporty Probe from a plant in Flat Rock, Mich., in 1987.

Increased plant productivity and improved employee-management relations played still another part. The company resisted new plant investments by running plants overtime. By the time auto production started to peak in 1987, Ford was building cars at more than 100 percent of capacity. Like GM and Chrysler, Ford also undertook a massive worker training program during the decade that involved teaching statistical process control to line workers at every plant in the system, offering adult literacy classes and giving new decision-making powers to workers.

A new line of products didn't hurt, either. The company increased its market share from 1983 to 1989 with new aerodynamic "jellybean" designs such as the Taurus/Sable while the Escort provided a decade of reliable sales.

By the late 1980s, Ford had amassed a corporate war chest of some $10 billion in cash, which it wanted to spend on global acquisitions. In 1989 Ford outmaneuvered GM in taking over Britain's Jaguar. Talks with Saab-Scania in Sweden fell through, leaving the door open for a last-minute GM-Saab arrangement.

It was clear that both GM and Ford were positioning themselves for the new opportunities expected in Europe in the next three years. The new alliances also gave them a foothold in the upscale vehicle segment where increasing competition loomed.

The crossfire of global competition mostly benefited the consumer. Although prices rose, product developments proliferated during the decade.

After the recession, consumers were offered convertibles in a quantity they hadn't seen since the 1960s. Jeep's long-lasting success had inspired a host of competitors.

Gasoline prices dipped; speed limits crept back up to 65 mph on some freeways; drivers crept back up to 75; and a new romance blossomed in bigger engines and sportier rides.

With fuel prices down and a new era of spending at hand, larger cars became popular once again. No longer were Japanese car companies confined to small, cramped vehicles. By 1989, Honda was selling a Civic model that was as large as its big brother Accord had been in 1981. Even Hyundai, an ambitious Korean manufacturer that sought to displace the Japanese as a key source of small economy cars in the mid-1980s, introduced a family sedan, the Sonata.

Headroom inched upward and so did horsepower. Fuel-injected engines became standard on most

HITS: *Taurus, minivans, Accord lead "Hall of Fame" list*

If there were a 1980s Hall of Fame, the Ford Taurus and Chrysler minivans would be near the top of most ballots.

They certainly rank among the most memorable vehicles of the decade in terms of styling, sales volume and importance to the companies that conceived them.

The Honda Accord is another milestone — and not just because it was the first Japanese car built in the United States.

Four generations of Accords were on sale at one point or another during the decade, a dramatic reminder of Japan's ever-shrinking product development cycles.

Although it hasn't been tested by time, Mazda's new Miata also appears destined to be remembered.

Strictly in terms of sales, the functional Ford Escort was the home-run car of the 1980s. More than 3.2 million were sold in the United States since 1980.

A competitor for volume has been the Chevrolet Cavalier, 2.5 million of which have been sold since 1980. Chevy also sold more than 1.9 million Celebrities.

Chrysler blurred the distinction between cars and trucks with the 1983 introduction of its minivans. By the end of 1988, the Dodge Caravan and Plymouth Voyager held 55.6 percent of the minivan market against a growing list of imitators.

Ford's Taurus and its Mercury Sable twin helped lead Ford to dizzying success after their 1985 launch.

Critics initially called Ford's rounded creations "jellybeans." Jack Telnack, Ford's vice president of design, recently defended the look from a practical sense — as a means to improve gas mileage — and from an aesthetic standpoint.

"People say that the aero look will cause all cars to look alike, but that's not true any more than that all birds look alike," said Telnack.

— Jim Henry

TECHNOLOGY: *A little star steals show*

The computer chip revolutionized automotive technology in the 1980s. It allowed cars to stop faster, accelerate more quickly, burn less fuel, produce fewer pollutants and ride more smoothly.

The introduction of microprocessor-driven electronic engine control systems served as the entre to electronic fuel injection systems, which increased power and cut emissions.

By 1988, 88 percent of all cars built in the United States were equipped with electronic fuel injection systems compared with only a handful at the start of the decade.

Electronic engine control systems and fuel injection allowed emissions and performance to be controlled over the full range of engine conditions — speed, load, atmospheric conditions — to an extent not possible with the previous mechanical systems.

Advancements in microprocessors created the opportunity for a compact, reliable and affordable braking system that can increase the margin of safety under many driving conditions.

Antilock braking systems have become the norm on luxury cars and are now finding their way to mid-priced cars and many pickup trucks.

Using similar technology, automakers and suppliers are now developing systems that control traction when accelerating and cornering.

In the 1980s, electronically controlled suspension systems — the precursors to active suspension — came into vogue, and were used on such cars as the Lincoln Continental and Mitsubishi Galant.

Other automotive products which came about as a result of the revolution in electronic technology include electronically controlled transmissions, variable valve timing systems, digital dashboards and heads-up displays, improved stereo systems, and even aerodynamic devices that adjust according to speed.

— Arthur Flax

DECADE IN REVIEW

1988

Ford Escort maintains its premier position with sales of 387,815 units. Newcomer Chevrolet Corsica/Beretta runs up total of 380,301 sales to capture second place.

	Car Sales	% of Market
GM	3,822,014	36.10%
Ford	2,289,764	21.63%
Chrysler	1,191,294	11.25%
Honda	768,995	7.26%
Mazda	250,333	2.36%
Nissan	472,870	4.47%
Toyota	688,883	6.51%
VW	191,739	1.81%
Total Dom.	7,526,034	71.11%
Total Imp	3,058,962	28.89%
Total	10,587,073	

VW includes Audi; Honda includes Acura

1989

The Ford Taurus, introduced as a 1986 model, leads the field with sales of 323,611. Escort finishes second for the fifth time with sales of 315,393. (Sales are thru Nov. 30.)

	Car Sales	% of Market
GM	3,221,052	34.94%
Ford	2,047,098	22.21%
Chrysler	959,128	10.41%
Honda	721,294	7.83%
Mazda	242,895	2.64%
Nissan	482,667	5.24%
Toyota	655,998	7.12%
VW	144,532	1.57%
Total	9,217,057	

VW includes Audi; Honda includes Acura; Toyota includes Lexus

imported cars, all Fords and numerous pickup trucks. Average vehicle weight was reduced, and fuel efficiency — spurred by federal standards — improved.

Expensive was chic in the 1980s. By the time the nation's spending binge was in full progress in 1986, Mercedes-Benz sales had nearly doubled. BMW sales had doubled. Sales of Scandanavian Saabs tripled. Jaguar's U.S. sales doubled once, twice and then a third time by 1986.

But then world markets pulled the plug on the dollar. The stock market crash of October 1987 put a chill on big-ticket spending. For the next two years, European carmakers would watch U.S. sales slip away. A Mercedes 300E had sold for $35,800 in 1985. Two years later, it sold for $43,400. The change in currency values also pressured the Japanese to raise sticker prices.

But by 1989, Toyota and Nissan had been emboldened to follow Honda into the high-margin luxury market, the bastion, until now, of a handful of European carmakers. Honda's Acura Division had been readily accepted by buyers in the $20,000-plus range. Toyota's new Lexus line would ask luxury shoppers to spend $35,000. Nissan followed suit with its Infiniti line.

The currency change of the late 1980s didn't seem to benefit the Big 3 as expected. Rather than seizing the opportunity to win back the market, domestic manufacturers increased prices in step with the importers. Industry car sales actually fell in 1987, constituting what analysts called a "mini-recession." But volume was back up the following year, and car sales managed to stay above 10 million units annually every year after 1983. Turmoil aside, all three U.S. carmakers experienced record profits in the late 1980s.

It helped that auto loan interest rates fell steadily through the decade from their double-digit highs. As 1985 ended, GM and Ford were publicly wondering whether rates might go as low as 7.9 percent. By 1988, to keep buyers interested and keep the sales boom going, they were offering 2.2 percent deals and Chrysler was attracting consumers with zero-percent lending.

By 1989, though, the cycle was visibly turning down and a 5 percent sales drop from 1988 looked likely. The population of cars and trucks on the streets in America had increased by more than 50 million between 1989 and 1979. The U.S. car business was growing more and more competitive. New North American factories meant expensive industry overcapacity at a time when carmakers in the United States, Japan and Europe were agreeing that 1990 looked bad.

Analysts prophesied that more North American plants would have to close. Others warned that the industry was constricting and that new mergers, takeovers and business failures loomed. As sales slowed in 1989, production was scaled back at a number of Big 3 plants. And as the decade drew to a close, the memory of its painful beginnings seemed as fresh as ever.

The 1990s may be the true test of the lessons of the 1980s. Carmakers have spent heavily during the past eight years to trim operational fat and improve product quality. Better relations have developed between labor and management. New income sources have been created, new products developed and new global business links formed that could ease the impact of future sales slumps in any given market.

But at the same time, the competition for the lucrative U.S. market is greater than it was 10 years ago. Pressures will mount for the development of new factories to replace aging facilities. New technology will have to be developed to replace older componentry, an area in which Japanese carmakers are now taking an aggressive lead.

The new regulations that are expected from the Bush administration on fuel economy, emissions control and product safety will be another test for the industry in the next few years.

The globalization of the industry remains a central force for the 1990s. Larger companies will have greater resources to compete in individual markets.

As global penetration becomes increasingly necessary for survival, success will depend more heavily on access to capital. New plants will be necessary to address new concerns over domestic content. New investments in technology will become more and more expensive. Such high-stakes competition will require both deep pockets and healthy partners to share the costs.

The industry spent the 1980s learning this lesson. It enters the 1990s living it.

ENGINEERING: *The fittest survive*

As auto engineers squint at the last 10 years and reflect on the changes that have taken place, one important thing becomes clear: Time is the enemy.

With more competitors in the arena, automakers have to keep pace to survive. The 1980s have triggered some important new weapons, such as supplier partners, simultaneous engineering and computer-aided design.

Probably the most important change was the passing of increased levels of engineering responsibility to outside suppliers. They are now brought in as early as four years before product introduction, requiring unprecedented levels of coordination, cooperation and trust.

"Commitments must become sacred," said a Ford Motor Co. engineer. "The Japanese do it. And we must do it, to survive."

The move toward simultaneous engineering has fostered constant communication between design, engineering, supplier and manufacturing groups.

They are brought together at the beginning of the process with the goal of getting projects done as quickly and economically as possible.

Terry Quattro, chief engineer on the Chevrolet Caprice, said that simultaneous engineering kept costs low and speeded the redesign of the division's flagship sedan.

Computer-aided design helps engineers examine many more design possibilities by using a computer's muscle to quickly sort through and illuminate the best solutions to engineering problems.

It also enhances communication by enabling different engineering groups to interface on a single piece of microprocessor-based equipment.

These systems increase productivity by speeding production flow and scheduling, and by providing greater flexibility in modifying machining operations.

— Jack Keebler

DEALERS: *Fewer outlets, CSI, computers, Tonkin*

New-car dealers generally prospered in the 1980s as sales of cars and trucks set records despite a 10 percent decline in the number of dealerships.

There were 27,891 dealerships in 1980 and 25,105 last year. The number of dealer principals fell even more sharply, from 25,100 in 1979 to 17,800 as a wave of consolidations hit the automotive retail business.

For a while, megadealers were all the rage as dealers rushed to acquire additional stores and franchises.

But some megadealers — like the 10-dealership Pepe chain in New Jersey, Jim Johnson Chevrolet in Texas and Grand Chevrolet in California — ended up in bankruptcy.

There was also a lot of hoopla — and little action — over the prospect of public ownership of dealerships. When it came right down to it, dealers preferred limited partnerships or other means to finance acquisitions.

Dealer-manufacturer relations came under the harsh glare of public scrutiny with the election of Ron Tonkin as president of the National Automobile Dealers Association for the 1989-90 term.

Tonkin said what was on most dealers' minds and in confrontational terms. He railed against automakers on such volatile issues as dealer advertising councils, fleet subsidies, retail incentives and elimination of carryover allowances.

The dealership itself changed dramatically with the introduction of computers in every phase of the operation, from the finance and insurance department to parts and service, where even the parts catalog has been computerized.

By the end of the decade, unprecedented attention was focused on another aspect of dealer-factory communication. Dealers and makers alike sought to gain a competitive edge by improving customer satisfaction programs at the dealership.

— Charles M. Thomas

Misses of the decade

- **Chrysler's purchase of AMC:** Chrysler got tons of capacity it didn't need, which is causing a furor as it closes plants
- **VW's transplant operation:** All other transplants going like gang-busters, VW bails out of U.S. manufacturing
- **Chevrolet's descent:** To second-place in new-car sales after about a half century of almost uninterrupted leadership
- **Saturn:** Announced in 1982 and still hasn't showed up
- **Public ownership of U.S. auto dealerships:** Heard much about it lately?
- **All-wheel drive:** Doesn't offer many more advantages then front-wheel drive
- **Four-wheel steer:** Low consumer interest, high cost
- **GM Quad-4 engine:** High vibration, poor low-end torque
- **Digital dashboards:** Hard to read and cheap looking
- **Pontiac Fiero:** Good car killed by poor planning
- **John Z. DeLorean:** His sports-car dream folds, and he becomes better known as a defendant (albeit successful) in lawsuits than as the automotive wunderkind of the 1960s and early 1970s
- **DeLorean Motor Co.:** Bankruptcy proceedings began in October 1982 and are not yet concluded
- **Chrysler's TC by Maserati:** Years in the planning and making . . . and it didn't last as long or sell as many copies as the DeLorean
- **1984 GM reorganization:** Has been finetuned and finetuned and is now being dismantled, piece by sorry piece
- **Yugo:** Right price, wrong car
- **Rise and fall of Audi:** From 37,-071 sales in 1980 to 74,061 in 1985, then down to about 23,-000 in 1989
- ***60 Minutes'* coverage of sudden acceleration:** What turned out to be "pedal misapplication" has done irreparable damage to Audi
- **Audi 5000:** Its unintended-acceleration pardon from NHTSA came too late
- **Rough Riders:** Ron Tonkin's gang generates a lot of smoke but no heat
- **GM, Roger Smith and Ross Perot:** GM's buyout of Perot's EDS climaxed with the $700 million buyout of Perot and his lieutenants
- **Flossmoor, Ill.:** Does not allow pickup trucks parked within city limits
- **Cadillac Allante:** Folks just aren't ready for a $55,000 Cadillac, even with the name Pininfarina attached to it
- **GM's high-tech plants:** Buick City and Hamtramck plants were disasters until GM discovered that people make plants run
- **Renault Alliance:** After initial sales success, dealers couldn't give it away
- **Rebates and incentives:** A good idea that fell into disrepute because of blatant overuse
- **Hyundai:** Once the darling of the U.S. market, sales plunge at end of decade
- **Merkur:** Another entry on list of Big 3 failures with captive imports